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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,865	10/18/2005	Nobuyuki Takakuwa	8048-1100	2148

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YOUNG & THOMPSON
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EXAMINER

DANG, HUNG Q

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No. 10/529,865	Applicant(s) TAKAKUWA ET AL.	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14 and 16 recite, “said setting device.” There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

.... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claims 1-6 recite “an information record medium”. However, in the state of the art, transitory signals are commonplace as a medium for storing and transmitting information and thus, in the absence of any evidence to the contrary and give the broadest reasonable interpretation, the scope of an “information record medium” covers a signal per se.

A “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is neither a process nor a product, (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, a “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is a form of energy, in the absence of any physical structure or tangible material.

The Examiner suggests amending the claim to recite the “information record medium” as “non-transitory computer-readable record medium” to include tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claims 8, 14, and 16 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. .

Claims 8, 14, and 16 are rejected under 35 U.S.C. 101 based on Supreme Court precedent and recent Federal Circuit decisions, a 35 U.S.C § 101 process must (1) be tied to a particular machine or (2) transform underlying subject matter (such as an

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article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the particular machine to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps are not tied to a particular machine and do not perform a transformation. Thus, the claims are non-statutory.

The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 USC 101. Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.

Claims 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 17-19 recite, "a computer program." Claim 20 recites, "a data structure". However, it appears that such would reasonably be interpreted by one of ordinary skill in the art as software, per se. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Software does not fall within a statutory

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category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claim 20 recites a “data structure including a control signal,” which is understood by one of ordinary skill in the art as signal, carrier wave, etc ..., with descriptive material. While “functional descriptive material” may be claimed as a statutory product (i.e., a “manufacture”) when embodied on a tangible computer readable medium, a signal or carrier wave, etc ... embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of Sec. 101. Rather, “signal” or “carrier wave” is a form of energy, in the absence of any physical structure or tangible material.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by

Kato et al. (US 2002/0135607 – hereinafter Kato).

Regarding claim 1, Kato discloses an information record medium, comprising: a content space in which a plurality of content domains are recorded and which occupies one area in a recording area of said information record medium ([0231]; [0238]-[0240]; *Fig. 14 – wherein at least the M2TS directory area corresponding to the area for the content space, in which a plurality of AV stream files, each of which correspond to a content domain, are stored*), each content domain being constructed from a series of content information ([0201]-[0204]; [0210]; *Fig. 14 – each of the content domains is constructed from a series of 01000.m2ts, 02000.m2ts, and 03000.m2ts AV stream files, each of which is the recited content information*); and a system space in which a plurality of menu domains corresponding to the plurality of content domains are recorded and which occupies a different area from said content space in the recording area (*Fig. 14 – wherein the system space corresponds to the space for the files info.dvr, menu.thmb, mark.thmb, whole directory PLAYLIST and/or directory CLIPINF - wherein each of the playlist files under the PLAYLIST directory is a menu domain. Each of such a playlist corresponds to the content domains as defined in data structures shown in Fig. 25 or Fig. 100 – the each playlist corresponds to a menu domain via at least a user interface defined by a structure shown in Fig. 27 and described in [0276] – also each of menu or mark thumbnails associated with clips is also a menu domain*), each menu domain being constructed from menu information as for the content information ([0201]-[0204]; [0276]), another menu domain being recorded in said system space, in addition to the plurality of menu domains (*Fig. 14; Fig. 21; [0201]-[0204]; [0241]-[0242]; [0254]-[0257] - wherein the system space corresponds to the space for the files info.dvr,*

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menu.thmb, mark.thmb, whole directory PLAYLIST and/or directory CLIPINF), the another menu domain being constructed from menu information as for whole of the plurality of content domains or as for whole of said information record medium (Fig. 21; [0201]-[0205]; [0254]-[0257] – the list of table and/or each menu or mark thumbnails associated with either whole volume, or table of playlist or each playlist is another menu domain).

Regarding claim 2, Kato also discloses wherein a content domain for first play, which is reproduced in an initial stage of a reproduction operation, is further recorded in said system space ([0254]; [0288]; Fig. 29 – wherein the content domain for first play is one of the AV stream files recorded in M2TS directory shown in Fig. 14 with a playback domain specified by the corresponding Playitem first defined in the playback sequence of playitems shown in Fig. 31 of the first playlist in the playback sequence of playlists defined in the Table of Playlist as described in [0254]).

Regarding claim 3, Kato also discloses wherein the content information is multiplexed and recorded by a unit of packet, which is a physically accessible unit and by which a piece of the content information is individually stored, as the content domain (Figs. 67-68, 85, 90-93, 97; [0156]; [0403]; [0417]).

Regarding claim 4, Kato also discloses wherein the menu information as for the whole is constructed from information for commonly performing selection or setting regarding a plurality of video information or audio information, which constitutes the content information, on the whole of said information record medium (Fig. 21; [0173]; [0204]-[0205]; [0254]-[0257]; [0276]).

Regarding claim 5, Kato also discloses wherein the menu information as for the content information is constructed from information for performing selection or setting regarding a plurality of video information or audio information, which constitutes the content information, only with respect to the content information (*Fig. 27; [0173]; [0201]-[0204]; [0276]*).

Regarding claim 6, Kato also discloses wherein a plurality of titles recorded on said information record medium individually comprise one of the content domains and one of the menu domains (*[0189]; [0201]*), and one of the plurality of titles comprises the another menu domain and a content domain for first play (*[0254]; [0288]; Fig. 29 – wherein the content domain for first play is one of the AV stream files recorded in M2TS directory shown in Fig. 14 with a playback domain specified by the corresponding Playitem first defined in the playback sequence of playitems shown in Fig. 31 of the first playlist in the playback sequence of playlists defined in the Table of Playlist as described in [0254] – the another menu domain is at least the one corresponding to the playlist that such a first playitem belongs to or of the Table of Playlist, in which the playlist of such a first playitem is defined*).

Regarding claim 7, Kato discloses an information record apparatus (*Fig. 1; [0162]; [0169]*), comprising: a first recording device for recording a plurality of content domains into a content space which occupies one area in a recording area of an information record medium (*[0231]; [0238]-[0240]; Fig. 14 – wherein at least the M2TS directory area corresponding to the area for the content space, in which a plurality of AV stream files, each of which correspond to a content domain, are stored*), each content

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domain being constructed from a series of content information ([0201]-[0204]; [0210]; *Fig. 14 – each of the content domains is constructed from a series of 01000.m2ts, 02000.m2ts, and 03000.m2ts AV stream files, each of which is the recited content information*); and a second recording device for recording a plurality of menu domains corresponding to the plurality of content domains into a system space which occupies a different area from said content space in the recording area (*Fig. 14 – wherein the system space corresponds to the space for the files info.dvr, menu.thmb, mark.thmb, whole directory PLAYLIST and/or directory CLIPINF - wherein each of the playlist files under the PLAYLIST directory is a menu domain. Each of such a playlist corresponds to the content domains as defined in data structures shown in Fig. 25 or Fig. 100 – the each playlist corresponds to a menu domain via at least a user interface defined by a structure shown in Fig. 27 and described in [0276] – also each of menu or mark thumbnails associated with clips is also a menu domain*), each menu domain being constructed from menu information as for the content information ([0201]-[0204]; [0276]), said second recording device recording another menu domain into said system space (*Fig. 14; Fig. 21; [0201]-[0204]; [0241]-[0242]; [0254]-[0257] - wherein the system space corresponds to the space for the files info.dvr, menu.thmb, mark.thmb, whole directory PLAYLIST and/or directory CLIPINF*), in addition to the plurality of menu domains, the another menu domain being constructed from menu information as for whole of the plurality of content domains or as for whole of said information record medium (*Fig. 21; [0201]-[0205]; [0254]-[0257] – the list of table and/or each menu or*

mark thumbnails associated with either whole volume, or table of playlist or each playlist is another menu domain).

Claim 8 is rejected for the same reason as discussed in claim 7 above.

Regarding claim 9, see the teachings of Kato as discussed in claim 1 above.

Further, Kato also discloses an information reproduction apparatus for reproducing information on said information record medium (*Fig. 1; [0162];[0169]*), said information reproduction apparatus comprising: a reproducing device for reproducing the content domain from said content space and reproducing the plurality of menu domains or the another menu domain from said system space (*[0169]-[0175]*); a setting device capable of externally setting a system parameter correspondingly to the reproduced plurality of menu domains or the reproduced another menu domain (*[0169]-[0175]*); and a controlling device for controlling said reproducing device to reproduce the content domain, in accordance with the system parameter externally set by said setting device (*[0169]-[0175]*).

Regarding claim 10, Kato also discloses wherein the system parameter includes: one or a plurality of first system parameters, which are set correspondingly to the plurality of menu domains (*[0173]*); one or a plurality of second system parameters, which are set correspondingly to the another menu domain (*[0170]*); and a third system parameter for indicating a content domain which is a setting object of the first system parameter (*[0170]; [0172]; [0173]; [0287]-[0288]; [0341]; [0384]*).

Regarding claim 11, Kato also discloses wherein the third system parameter indicates that the first system parameter is not set, by virtue of its particular value

([0170]; [0172]; [0173] – wherein the first system parameter not being set is indicated by at least no mark having been selected by users).

Regarding claim 12, Kato also discloses wherein the second system parameter .includes a resume flag for indicating whether or not the second system parameter is changed in the another menu domain if the reproduction of the content domain is restarted by resume reproduction, and said controlling device controls said reproducing device to perform the resume reproduction of the content domain, on the basis of the resume flag *([0202]; [0246]-[0248])*.

Regarding claim 13, Kato also discloses wherein the system parameter further includes a fourth system parameter for indicating a content domain which is being currently reproduced by said reproducing device *([0287]-[0288]; Fig. 29)*, and said controlling device controls said reproducing device to reproduce the content domain on the basis of the first system parameter, if the content domain indicated by the third system parameter agrees with the content domain indicated by the fourth system parameter *([0341]; [0384]; [0545]-[0553])*.

Claim 14 is rejected for the same reason as discussed in claim 9 above.

Claim 15 is rejected for the same reason as discussed in claims 7 and 9 above.

Claim 16 is rejected for the same reason as discussed in claims 8 and 14 above.

Claim 17 is rejected for the same reason as discussed in claim 7 above.

Claim 18 is rejected for the same reason as discussed in claim 9 above.

Claim 19 is rejected for the same reason as discussed in claim 15 above.

Claim 20 is rejected for the same reason as discussed in claim 1 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621